Mental Health Series

SSRI and Suicide in Adolescents

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DEPRESSION AND SUICIDE

Mood disorders are diagnosed according to DSM-IV, TR criteria. Symptoms of depression include psychomotor retardation or agitation, loss of interest or pleasure, lack of reactivity to pleasant stimuli, difficulty sleeping (increased or decreased), feelings of hopelessness, suicidal ideation, and appetite changes. Although debated, the criteria used for adults are essentially identical for children and adolescents. As children age, characteristic symptoms change. In controlled studies, adolescents were found to exhibit more hopelessness, with symptoms of depression, excessive sleep, weight change, and drug abuse. Although there was not a significant difference in suicidal ideation between adolescents and children, the adolescents were found to choose more lethal methods.[1]

The lifetime prevalence of depression in adolescence has been estimated to be 20%, even though the percentage is thought to be higher because of underreporting by teenagers. A study by the National Health and Nutrition Examination Survey found among adolescents, 15-19 years old, that one-third reported a history of at least one depressive period lasting at least six weeks.[2] For depressed adolescents, the risk of suicide is higher than in the general population.[3] In the United States, suicide is the fourth leading cause of death for children between the ages of 10-14 and the third leading cause of death for adolescents and young adults ages 15-24.[4] It is also the third leading cause of death in Tennessee.[5] In a recent study of depressed adolescents, 8% completed suicide when they were adults.[6]

SSRIs AND SUICIDE

Treatment for depression in adolescents is important and beneficial.[3] In particular, studies have shown the class of antidepressants, selective serotonin reuptake inhibitors (SSRIs), is preferred because of its efficacy and superior safety profile.[6] As the adolescent is treated with medication, many symptoms often improve dramatically. However, the suicide risk may increase during this time because the cognitive changes of hopelessness has not yet improved.

SSRIs include Prozac, Zoloft, Paxil, Luvox, Celexa and Lexapro. These agents block the reuptake of the serotonin from the synaptic cleft. Prozac is the only SSRI that is approved by the U.S. Federal Drug Administration (FDA) for treatment of depression in children and adolescents. The other SSRIs, when used in children and adolescents, are considered "off-label" use. This "off-label" use is commonly accepted in clinical practice and legally allowed in most states, including Tennessee. "Off label" use is a result of limited pediatric clinical trials. However, new guidelines published by the FDA may encourage future trials in this age group.[7]

Over the last few months, there has been much attention regarding whether depressed children and adolescents treated with an SSRI have an increased risk of completed suicide.[3] A number of sensational cases have been reported in the courts about an interaction between SSRI use and violent behavior towards self and others. Although litigation has proceeded, direct correlation has not been clinically proven between SSRIs and violent behavior. In *Miller v* Pfizer (2002), the parents of Matthew Miller, 13 years old, claimed their son completed suicide because of the effects of taking Zoloft, an SSRI manufactured by Pfizer, Inc. The claim was brought under the Kansas Products Liability Act (KPLA), for misrepresentation and negligence for failure to test and warn. The expert medical opinion that linked SSRIs to suicide did not qualify under the legal rules of evidence, leaving this issue open.[8]

However, studies completed for the FDA have shown a link between violent suicidal behavior and children or young adults who have taken SSRIs. In particular, three controlled clinical trials were completed by the FDA using Paxil for children under the age of 18. These studies showed a threefold increase of self-harm and suicidal behavior for those receiving active medication compared to the children who were taking a placebo. Because of these findings, in June 2003 the United Kingdom banned the use of Paxil for children and adolescents. The FDA followed with a letter of warning to clinicians in the United States advising them of the risk for increased suicide behavior (attempts and completions).[9] In October 2003, after further clinical studies, the FDA released another advisory to physicians asking them to report suicidality found in pediatric patients who had a diagnosis of major depression and were treated with various antidepressants. The advisory warning stated that although research data did not decisively prove a link between the use of SSRIs and increased suicidal ideation or behavior, the FDA's data do not rule out an increased risk now. The findings in the report are based on observations of patients who were taking Prozac, Luvox, Paxil, Zoloft, Celexa as well as Effexor, Remeron and Serzone. According to the report, there

were no completed suicides in approximately 4,100 pediatric patients. The FDA has plans to hold a joint meeting in February 2004, with a pediatric subcommittee, to discuss possible regulatory actions.[10]

CONCLUSION

In conclusion, studies have shown that the rate of depression is increasing in younger individuals and that depression in adolescents is associated with substantial morbidity and mortality, due to suicide.[1,11] Antidepressant medications are becoming conventional and beneficial modalities in the treatment of children and adolescents with depression. Recent changes made by the FDA will hopefully lead to increased research in this age population. The controversy over suicidality, because of the use of SSRIs, continues to receive attention; however, direct clinical correlation has not been firmly established. The issues are also confounded by coexistent severe psychiatric problems in addition to drug abuse. Regardless of the controversy, it is important that children and adolescents with major depression receive appropriate treatment that may include the use of antidepressant medications. Treating depression with medication can often be a lifesaving modality for this age group.[3] ■

References

1. Wiener J (ed): Textbook of Child and Adolescent Psychiatry, ed. 2. Washington DC, APA Press, 1997.

2. Brunk D: News/San Diego Bureau: Depression may hit one-third of adolescents. Clin Psychiatry News 31(2):7, 2003.

3. Wagner KD: Suicide in depressed youths. Psychiatric Times. 20(13):34, December 2003.

4. ND Adolescent Suicide Prevention Task Force. Suicide: By North Dakota Children, Teenagers, and Young Adults. September, 2000.

5. Dept of Health, Bureau of Health Infomatics, Adolescent Suicide (ages 10-24) – Healthy People 2010 Objective 18-01: Reduce the suicide rate among adolescents, 2001

6. Bostic J, Wilens T, et al: Pediatric psychopharmacology update: category 1. Psychiatric Times. 20(9):91, September 2003.

7. Regan J, Alderson A: "Off-label" psychotropic medication use in children. Tenn Med 96:429-431, 2003.

8. Miller v Pfizer, 196 F. Supp. 2d 1062 (Kansas 2002).

9. Breggin PR: Suicidality, violence and mania caused by selective serotonin reuptake inhibitors (SSRIs): A review and analysis. Intl J Risk & Safety Med16:31-49, 2003/2004.

10. Mechcattie E: FDA sets stage for debate on antidepressants, kids. Clin Psychiatry News 31(12):1, 2003.

11. American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders-IV, TR (text revision), Washington, DC, 2000.

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